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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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10/630,954

01/26/2004

David Miles

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11/02/2007

WOMBLE CARLYLE SANDRIDGE & RICE, PLLC

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EXAMINER

BROOKS, KRISTIE LATRICE

ART UNIT

PAPER NUMBER

1616

MAIL DATE

DELIVERY MODE

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PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary

Application No.

10/630,954

Applicant(s)

MILES, DAVID

Examiner

Kristie L. Brooks

Art Unit

1616

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 05 October 2007.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 66,67,71,74 and 76-81 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 66,67,71,74 and 76-81 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☒ Claim(s) 66,67,71,74 and 76-81 are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
 - ☐ Certified copies of the priority documents have been received in Application No. _____.
 - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO/SB/08)
Paper No(s)/Mail Date 7/23/04.
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____.
- 5) ☐ Notice of Informal Patent Application
- 6) ☐ Other: _____.

DETAILED ACTION

1. Applicant's election without traverse of a fungicide and the further election of species of thiophanate-methyl in the reply filed on October 5, 2007 is acknowledged.

Status of Application

2. Claims 66-67, 71, 74 and 76-81 are pending.

Claim Rejections - 35 USC § 102

3. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

4. Claims 66-67, 71, and 79-81 are rejected under 35 U.S.C. 102(b) as being anticipated by Moore (US 5,180,587).

Moore (US 5,180,587) teaches a tablet formulation comprising (i) a pesticide, (ii) a delivery system comprising: (a) a dibasic or tribasic organic carboxylic acid, (b) an ammonium salt, (c) a dispersant, (d) a water-insoluble cross-linked polyvinylpyrrolidone, and (e) an anionic or nonionic wetting agent (see the entire article, especially the abstract and column 1 lines 24-45). The formulations of the invention afford rapid disintegration and dispersion of pesticidally active compounds that are water insoluble or have very low water solubility (see the entire article, especially column 1 lines 18-22).

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An example of the pesticide include thiophante-methyl, the dibasic and tribasic organic carboxylic acid include citric or oxalic acid and anionic wetting agents include dialkyl sulfosuccinates (see the entire article, especially Table I (compound No. 85) in column 7, column 2 lines 11-13 and 35-40). Example 2 discloses a tablet prepared from the following ingredients:

Ingredient	Weight %
MBC (fungicide)	52.1
Citric Acid	10.0
Sodium Bicarbonate	25.6
Lomar PWA	5.0
Polyplasdone XL-10	1.0
Monawet MB-100	1.0
Boric Acid	5.0
Magnesium Stearate	0.3

The tablet was dispersed in 25 °C tap water (see the entire article, especially Example 2 in column 12).

Claim Rejections - 35 USC § 103

5. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

The factual inquiries set forth in *Graham v. John Deere Co.*, 383 U.S. 1, 148 USPQ 459 (1966), that are applied for establishing a background for determining obviousness under 35 U.S.C. 103(a) are summarized as follows:

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1. Determining the scope and contents of the prior art.
2. Ascertaining the differences between the prior art and the claims at issue.
3. Resolving the level of ordinary skill in the pertinent art.
4. Considering objective evidence present in the application indicating obviousness or nonobviousness.

6. Claim 74 is rejected under 35 U.S.C. 103(a) as being unpatentable over Moore (US 5,180,587).

Applicant claims a composition comprising a composition comprising a chelating agents and an active component selected from virucides, bactericides and fungicides.

Determination of the scope and content of the prior art

(MPEP 2141.01)

Moore teaches a tablet formulation comprising (i) a pesticide, (ii) a delivery system comprising: (a) a dibasic or tribasic organic carboxylic acid, (b) an ammonium salt, (c) a dispersant, (d) a water-insoluble cross-linked polyvinylpyrrolidone, and (e) an anionic or nonionic wetting agent (see the entire article, especially the abstract and column 1 lines 24-45). The formulations of the invention afford rapid disintegration and dispersion of pesticidally active compounds that are water insoluble or have very low water solubility (see the entire article, especially column 1 lines 18-22). An example of the preferred pesticides include thiophanate-methyl, the dibasic and tribasic organic carboxylic acids include citric or oxalic acid and anionic wetting agents include dialkyl sulfosuccinates (see the entire article, especially Table I (compound No. 85) in column

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7, column 2 lines 11-13 and 35-40). Example 2 discloses a tablet prepared from the following ingredients:

Ingredient	Weight %
MBC (fungicide)	52.1
Citric Acid	10.0
Sodium Bicarbonate	25.6
Lomar PWA	5.0
Polyplasdone XL-10	1.0
Monawet MB-100	1.0
Boric Acid	5.0
Magnesium Stearate	0.3

The tablet was dispersed in 25 C tap water (see the entire article, especially Example 2 in column 12).

Ascertainment of the difference between the prior art and the claims

(MPEP 2141.02)

Moore does not teach an exemplified formulation using thiophanate-methyl as claimed by Applicant.

Finding of prima facie obviousness

Rational and Motivation (MPEP 2142-2143)

It would have been obvious to one of ordinary skill in the art at the time the claimed invention was made to use thiophanate-methyl in the composition.

One of ordinary skill in the art would have been motivated to do this because

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Moore suggests the use of thiophanate-methyl, a low water soluble pesticide, in the formulation. Thus it would be obvious to one of ordinary skill in the art to use thiophanate-methyl because of its low water solubility. Therefore, the claimed invention would have been *prima facie* obvious to one of ordinary skill in the art at the time the invention was made because the prior art is fairly suggestive of the claimed invention.

7. Claim 78 is rejected under 35 U.S.C. 103(a) as being unpatentable over Moore (US 5,180,587) in view of West (US 5,312,558).

Applicant claims a composition comprising a composition comprising a chelating agents and an active component selected from virucides, bactericides and fungicides.

Determination of the scope and content of the prior art

(MPEP 2141.01)

Moore teaches a tablet formulation comprising (i) a pesticide, (ii) a delivery system comprising: (a) a dibasic or tribasic organic carboxylic acid, (b) an ammonium salt, (c) a dispersant, (d) a water-insoluble cross-linked polyvinylpyrrolidone, and (e) an anionic or nonionic wetting agent (see the entire article, especially the abstract and column 1 lines 24-45). The formulations of the invention afford rapid disintegration and dispersion of pesticidally active compounds that are water insoluble or have very low water solubility (see the entire article, especially column 1 lines 18-22). An example of the preferred pesticides include thiophanate-methyl, the dibasic and tribasic organic carboxylic acids include citric or oxalic acid and anionic wetting agents include dialkyl

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sulfosuccinates (see the entire article, especially Table I (compound No. 85) in column 7, column 2 lines 11-13 and 35-40). Example 2 discloses a tablet prepared from the following ingredients:

Ingredient	Weight %
MBC (fungicide)	52.1
Citric Acid	10.0
Sodium Bicarbonate	25.6
Lomar PWA	5.0
Polyplasdone XL-10	1.0
Monawet MB-100	1.0
Boric Acid	5.0
Magnesium Stearate	0.3

The tablet was dispersed in 25 C tap water (see the entire article, especially Example 2 in column 12).

West teaches a pesticide composition comprising a pesticide, an emulsifier and a formulation formed by combining a water dispersible solvent, an orthophosphonis acid, and cocodimethyl amine (see the entire article, especially the abstract). The molecular dispersions of the present invention provide unexpectedly good levels of pesticidal activity (see the entire article, especially column 1 lines 25-28). Emulsifiers or surfactants that are useful for the invention include cocodimethyl ammonium chloride (see the entire article, especially column 1 lines 49-51).

Ascertainment of the difference between the prior art and the claims

(MPEP 2141.02)

Moore does not teach the use of cocodimethyl ammonium chloride as claimed by Applicant.

Finding of prima facie obviousness

Rational and Motivation (MPEP 2142-2143)

It would have been obvious to one of ordinary skill in the art at the time the claimed invention was made to use cocodimethyl ammonium chloride in the composition.

One of ordinary skill in the art would have been motivated to do this because West suggests the dispersant compositions comprising cocodimethyl ammonium chloride can enhance pesticidal activity. Thus it would have been obvious to one of ordinary skill in the art to use cocodimethyl ammonium chloride for enhancement of pesticide activity. Therefore, the claimed invention would have been *prima facie* obvious to one of ordinary skill in the art at the time the invention was made because the prior art is fairly suggestive of the claimed invention.

8. Claims 66, 71, 74, 76-77, 79 and 81 are rejected under 35 U.S.C. 103(a) as being unpatentable over Kurita et al. (US 5,863,909).

Applicant claims a composition comprising a composition comprising a chelating agents and an active component selected from virucides, bactericides and fungicides.

Determination of the scope and content of the prior art

(MPEP 2141.01)

Kurita et al. (US 5,863,909) teach an adjuvant composition for agricultural chemicals comprising a polymer type quaternary ammonium salt surfactant (see the entire article, especially column the abstract). The adjuvant compositions together with an agricultural chemical enhance efficacies of the agricultural chemicals (see the entire article, especially the abstract and column 1 lines 14-20). The quaternary ammonium salt can have a linear or branched alkyl or alkenyl group having 8 to 30 carbon atoms (see the entire article, especially column 2 lines 6-17). The agricultural chemicals that may be used include fungicides such as thiophanate-methyl (see the entire article, especially column 9 line 43). The compositions can also a chelating agents such as aminopolycarboxylic acids, aromatic and aliphatic carboxylic acids, amino acids, etc (see the entire article, especially column 9 lines 16-26). The agricultural chemical compositions may be prepared in any form such as liquid preparations and emulsions (see the entire article, especially column 9 liens 5-12).

Ascertainment of the difference between the prior art and the claims

(MPEP 2141.02)

Kurita et al. do not teach an exemplified formulation of a chelating agent and a fungicide as claimed by Applicant. Further, Kurita et al. do not teach an exemplified formulation of a chelating agent, a fungicide, and a quaternary ammonium salt as claimed by Applicant.

Finding of prima facie obviousness

Rational and Motivation (MPEP 2142-2143)

It would have been obvious to one of ordinary skill in the art at the time the claimed invention was made to make a formulation comprising a chelating agent, a fungicide and a quaternary ammonium salt.

One of ordinary skill in the art would have been motivated to do this because Kurita et al. suggest the adjuvant compositions comprising a quaternary ammonium salt, and a chelating agent enhance the efficacies of the agricultural chemicals. Thus it would be obvious to one of ordinary skill in the art to make a composition comprising a quaternary ammonium salt and a chelating agent combined with a fungicide to enhance the activity of the fungicide. Therefore, the claimed invention would have been *prima facie* obvious to one of ordinary skill in the art at the time the invention was made because the prior art is fairly suggestive of the claimed invention.

Conclusion

9. No claims are allowed.

10. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Kristie L. Brooks whose telephone number is (571) 272-9072. The examiner can normally be reached on M-F 8:30am-6:00pm Est..


If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Johann R. Richter can be reached on (571) 272-0646. The fax phone

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number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

KB



Sharmila Landau
Primary Patent Examiner
Art Unit 1616